EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 03034718
PUBLICATION DATE : 14-02-91

APPLICATION DATE : 30-06-89
APPLICATION NUMBER : 01169677

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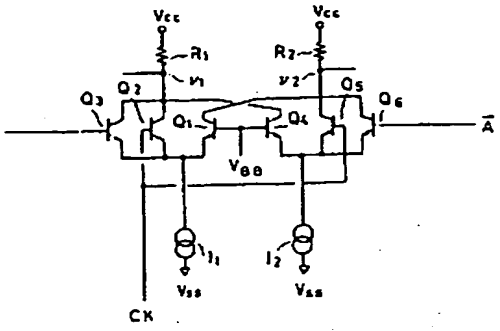
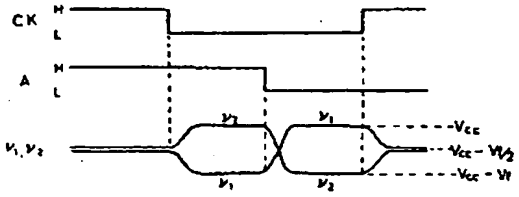
INT.CL. : H03K 3/286 H01L 27/082

TITLE : SEMICONDUCTOR INTEGRATED CIRCUIT





ABSTRACT : PURPOSE: To make the lower limit of a power voltage sufficiently small by inputting complementary input signals to the bases of 3rd and 6th bipolar transistors(TRs), applying a clock signal to the bases of 2nd and 5th bipolar TRs, and feeding a reference signal to the bases of 1st and 4th TRs.

CONSTITUTION: The bases of TRs Q_1, Q_4 are connected in common, a reference voltage VBB is applied to the connecting point and a clock CK is inputted to the bases of the TRs Q_2, Q_5. Moreover, complementary input signals A, A' are inputted to the bases of TRs Q_3, Q_6. When the clock CK is at a high level, a same potential V_{cc}-V_1/2 appears at the nodes v_1, v_2 and when the clock CK is at a low level, an ECL logic signal appears at the nodes v_1, v_2 depending on the inputs A, A'. Thus, the transfer of data by the clock without series gating. As a result, a high voltage source V_{cc} is made close to a low voltage source V_{ss} and the lower limit of the power voltage is sufficiently made small.